

Work Zone Safety Task Force
Selah Maintenance Facility, 9:00 am
August 9, 2005

Welcome

Don Whitehouse, Regional Administrator for South Central Region, welcomed the group and talked about safety performance measures. Don's region looked at decreasing the number of employee injuries, with reported injuries as the performance measure. They addressed the most frequent causes of reported injuries in monthly safety meetings, and encouraged work unit ownership of the problem by sharing safety data and facilitating steps to improve performance. Reportable injuries dropped over 20% between 2002 and 2004.

Don and Rick Gifford also talked about a paving project where moving traffic better was highlighted. Rick's paving project was experiencing extremely heavy traffic volumes for traffic heading east on I-90 and was having close to three hour delays during paving operations. When the eastbound volume data, including truck percentages, was reevaluated, it became apparent that the work should be done at night.

ITS in Work Zone Work Shop

September 12-13 the AASHTO's Technology Implementation Group is putting on an Intelligent Transportation System in Work Zones Workshop and Peer Exchange. The meeting will be held in St. Louis and will cover various areas of ITS and implementation at the state level. Speakers will cover topics such as successfully launching ITS within agencies, how ITS addresses customer expectations, and overcoming internal state DOT ITS obstacles. Amy Revis and Marty Weed will be representing Washington State.

Next Meeting

The next Work Zone Safety Task Force Meeting will be held November 8, 2005 in Spokane. Ralph Robertson will be the region contact.

WSP Work Zone Draft Policy

The Washington State Patrol draft policy explains what the program is, the strategies to implement it, and the policies and procedure to follow. Frank asked the group for feedback, it will also be posted on the Work Zone webpage for review. The WSP will also be reviewing the policy. All comments will be reviewed at the November WZSTF meeting and the policy will be finalized. The policy will be contained in the Joint Operating Procedures Statement (JOPS) and in Chapter 5 of the Traffic Manual.

There was discussion regarding fire departments – the group believes the regions need to work with local fire departments to coordinate issues.

WSP in Work Zones Media Event

August 22, WSDOT and WSP will meet to discuss WSP troopers in work zones. Hopefully by September 2005 five troopers working on five different projects for five hours at a time will be in work zones writing tickets for all infractions. The locations will not be announced but the event will be highly publicized so driver behavior in work zones can be changed. The program will initially center in the Puget Sound area in both construction and maintenance sites, on highways and rural areas.

Lieutenant Jim Keightley, representing the Yakima Washington State Patrol, suggested that five troopers in five hours could make up to 200 stops, and a trooper on a motorcycle

could make even more. He also pointed out that five troopers in one work zone would be too many and that two or three would be more effective. The Lieutenant did express concern about troopers' exposure to traffic and their safety during night work.

Region Roundtable

South Central – June 1 a scraper was hauling dirt across a lane in the Tri City area, one lane was closed and a flagger was stopping traffic, when a car passed by the flagger and hit the scraper. The passenger was injured and the driver was killed on impact. Dust may have obscured the flagger. An investigation turned up absence of drugs or alcohol in the driver, but other drivers indicated that the car had passed them at a high rate of speed. June 22 a striping crew that was working outside of Yakima had proper signing including a pick up with a sign and two arrow trucks, and when they slowed down so as to avoid being on a bridge at the same time as a wide load, a truck hauling hay hit the striping vehicle injuring two strippers and the striping truck driver. The commercial truck driver was issued a negligent driving citation. Repair of the striping vehicle and clean up of large amounts of paint on the road was costly.

Olympic Region – Sue Babic's crew has been using LED strobe lights on their slow moving or stopped vehicles, which has been very effective in slowing traffic down. Only emergency vehicles are allowed to use red strobe lights, Frank will check to see if vehicles used in both work zones and for incident response can use red lights in work zones if not responding to an incident. Sue talked about the frustration and danger of having a ramp closed yet drivers insist on going around barricades and using the ramp anyway. This would be an area where WSP enforcement would be appreciated. She also talked about lane closures that should have been routine but ended up creating two and three mile backups so the work site was closed down. One particular area had to have several closure attempts before the job was completed because of the backup created. Steve Haapala talked about lessons learned in a construction zone where a temporary pavement marking plan closing a left lane in the vicinity of an interchange did not operate well when implemented. Traffic did not adjust to the change so the plan was revised and the markings were replaced per the revised plan. Amy Revis talked about a worker on the shoulder of the road hit by a motorcycle at a controlled intersection. Amy said that workers tell her the biggest issues associated with work zones are night work and DUIs. She feels WSP enforcement would be an asset.

Northwest Region – Phil Fordyce talked about how smooth a paving operation on I5 through downtown Seattle went because of media publicity and because the WSDOT web site had a precise timeline of what was going on at any given time. Driver inattention caused a couple of accidents. On a separate project two drivers involved in a road rage incident in a work zone were pulled over and cited by a trooper. A passenger in one of the vehicles involved is suing WSDOT saying that the back up caused by the work zone caused the road rage. In a third incident, an ABSORD 350 temporary attenuator was struck by a semi-truck, the attenuator basically exploded which it is designed to do so that there was little damage to the truck. A fourth accident involved a flagger that was struck at the end of a long straight stretch of road just before a bridge. It is still unclear as to exactly what happened, but the flagger has extensive injuries including broken bones and internal injuries.

North Central Region – Kirk Berg says they have had no major work zone accidents, but many close calls. In July a semi on a two-lane road didn't realize he was in a work zone until he hit some cones, he claims to not have seen any signs or flaggers. More drivers than ever before are coming into work zones with the same claims. In another incident a

car going over the 35 mph recommended speed rolled over during a chip seal job. The region policy is now to use a regulatory rather than an advisory speed limit sign when there is loose rock on the road.

Kirk said they were concerned that contractors using lump sum traffic control would be scrimping or cutting corners, but this has not happened. In fact it has led to better planning and coordination, and prime contractors and subcontractors are working much better together.

Eastern Region – Ralph Robertson says in his region the lump sum work is not as coordinated in the planning area as it could be, but as for traffic control, this area is working well. Ralph talked about a close call where surveyors in a van were pulled over on the shoulder and side swiped by a semi. The WSP investigated and no citations were issued.

Southwest Region – Chris Tams, the new SW Region rep to the task force, talked about lessons learned when the WSP said the regulatory speed signs on a SR14 project were inadequate (less than seven feet in size) and the speed limit couldn't be enforced. Frank Newboles says there is a need for a rigid portable stand that can hold two signs over seven feet. Marty Weed and Frank will report back at the November meeting with what is available.

Ken Smith of the Design Office said that a pilot training class on constructability review training is being taught, the pilot is open to input. Ken will be checking to see if the class has a portion on work zones.

Mike Fallon from Wilder Construction says they are trying to do more night paving. He talked about the lump sum traffic control; he doesn't feel it provides a level playing field if the traffic control plans lack enough detail to accurately describe the traffic control features and devices.

Work Zone Performance

A discussion took place concerning interest by executive staff in paint stripe removal. Grinders leave a scar, often don't perform as they should and sometimes break down. Hydro blasting paint removal has been used successfully on different types of pavement markings, with full removal of paint and limited scarring. Hydro blasting may become the preferred method. Although faster, this method is also more expensive and equipment is not always readily available. Limitations on the contractor's ability to provide this equipment need to be looked at.

Another aspect of work zone performance being questioned is communication. The project engineer's office needs to communicate in a timely manner so that people know if the work related traffic restrictions are not going to be done on the projected date or time.

Questions were raised regarding clear zone and protection in work zones. Clear zone and safety zone definitions are not necessarily clear nor compliment each other, and there are questions as to which zone should be set up in which situation. Some felt the new FHWA work zone ruling and the MUTCD clarified this, others did not. The WZSTF Technical Committee will work this issue for clarity.

Phil Fordyce asked if there has been pressure for WSDOT to go to night work to avoid more congestion. Kevin said he has not heard specifics but wouldn't be surprised if there

isn't pressure at some point to avoid day operations. There is currently a push to look at traffic impacts and to make sure the public is kept informed.

FHWA

FHWA Case Studies were handed out, one copy for each region. A handout of all the FHWA publications that can be downloaded was also handed out.

Work Zone Safety Task Force Subcommittees

Traffic Control Oversight – Frank reported for Dave Hamacher of the Safety Office. Dave is conducting a durability test on a Class 2 T-shirt to see if the reflective sheeting holds up. In the past, T-shirts have not met Class 2 requirements and a Class 2 vest is required. Kathy Hatcher raised concerns about the use of a T-shirt in a work zone, uniformity of garments is important for driver recognition and enforcement. She felt the T-shirt may have some limited use at night in a protected zone. Frank reported the Traffic Control Oversight Committee is also updating the process of monitoring TCS training. ATSSA and AGC want to become trainers, no final decision has been reached yet. Currently, Washington has a flagging reciprocity agreement with a few other states; some states are requesting a TCS reciprocity as well. Washington State has very specific TCS standards that currently differ from other states. This issue is pending. Dave organized a small committee to develop a work zone video. Dave is also working on a near miss report form. Frank talked about a citation that L&I issued to Southwest Region because a flagger was not in a safe location prior to traffic being stopped. WSDOT contends the flagger was safe and did not step out into traffic until it was stopped.

Safety Products Subcommittee – Marty Weed brought a portable speed bump for the group to see. Sue Babic's crew used it successfully, it fits across one lane and may be most effective on a road with a 35 mph speed limit or less. The speed bump would be most useful to put before a flagger to slow down traffic and/or in the middle of a work zone to keep traffic slowed down. Before WSDOT commits to using the portable speed bump, other factors would have to be looked at. In some situations, drivers are unaware of what the speed bump is and may go into another lane to avoid it. Marty also reported some good news: on July 7 the FHWA gave interim approval to use the automated flagger assistant device (AFAD's) on all state roadways in WSDOT's jurisdiction.

Technical Subcommittee – Frank said that the Technical Subcommittee is working on adoption of the 2003 MUTCD, completion target date is October. The M54-44 will be updated accordingly. This subcommittee is also working on traffic control plans for litter control groups to use. The work zone reviews are almost completed; procedures will be updated and presented along with results of the reviews at the next WZSTF meeting. Frank also talked about border crossing traffic control, QUEWZ98 and Quick Zone, (QUEWZ98 is a traffic analysis tool, traffic volume data is entered into the program and it calculates the potential backups that can be expected when lanes are closed), an inspector work zone training course, the work zone web page, and a policy for crews working over live traffic.

Phil asked if Frank and Marty had the resources to complete in a timely manner all the tasks that the WZSTF hands them. Frank feels they are effectively pursuing the work within the limitations of a small team, but that it's ok for the task force to help set priorities. Kevin says he doubts more positions will be funded; Rick Gifford suggested that the regions could provide assistance in slower times.

ADIEUM Attenuator

Ken Smith explained that WSDOT has been looking at the use of ADIEUM attenuators and whether or not they should be phased out. A proposed direction may be that contractors will be allowed to use them on temporary projects where the posted speed is less than 45 mph. These attenuators may be phased out of all high-speed areas and removed from the interstate. Ken says a memo will go out explaining this new policy. With the safety of the public paramount, the regions will be allowed to make the decision as to whether or not to use the ADIEUM Attenuator if they have a product that produces better results.

Work Zone Review Process

Frank told the group that the review report will be presented at the November WZSTF meeting. The process changed this year, and contract plan designs and PSE issues are being looked at more closely. Reviews are therefore taking longer, but Frank is getting good feedback from the regions. The regions will be asked to follow up on items identified in reviews and this will be tracked. Areas that are being noted are: poor design strategies, pavement marking installation or removal, housekeeping items, clear zone/safety zone conflicts, shoulder closure devices not fore warned, signing conflicting with city streets, and pedestrian/bike issues not coordinated with city streets. On the positive side, there seems to be better coordination: between project and the PIOs, on the strategy and staging, and on most pedestrian/bike issues. Overall traffic control is improving and for the first time there is follow up with the regions to see if identified problems are fixed. The comment was made that if the reviews were scheduled further in advance, that the project engineer may be more likely to attend. Frank said the reviews are scheduled within the parameters of the project schedule as early as possible.

Work Zone Bulletin

The work zone bulletins come from the WZSTF Technical Team and contain useful information the regions could consider. The bulletins are posted on the work zone web page <http://www.wsdot.wa.gov/biz/trafficoperations/workzone/resources.htm> and mailed out. The most current bulletin talks about best practices when dealing with crashes and incidents.

Short Duration Work Zone and Flagging

Frank explained the short duration work zone (work activities up to 60 minutes) issue is still being worked with the Department of Labor and Industries. L&I argues that work zones of any duration still need to have full signing and flagging. The MUTCD allows for simplified traffic control procedures for short duration work but doesn't go into detail as to what those procedures might be. The WSDOT Work Zone Traffic Control Guidelines (54-44) has a chapter on Short Duration Work Zones that states, "...simplified traffic control set ups are allowed..." to reduce worker exposure to traffic. Consideration of traffic and roadway conditions must be given to each work zone in selecting the most appropriate traffic control set up.

Quick Zone Training

Quick Zone is a Micro Excel based work zone traffic analysis tool which estimates the capacity in work zones, projects delays and queues, and provides alternative construction phasing plans, delay mitigation strategies, work completion incentives, and construction and delay costs. Training on the Quick Zone tool will be offered in March 2006 for those who want to be more familiar with the tool. Frank urged each region to send at least one representative to the training, and commit to using the tool on one or more projects. Work zone analysis tools will eventually be built into all projects, ideally in the planning

stages. Compliance with the FHWA new work zone ruling will require traffic analysis on significant high impact projects.

FHWA Work Zone Rule

Frank explained that the rule only applies to federally funded projects, and encouraged everyone to look at upcoming projects to make sure WSDOT is in compliance by October 2007. Further guidance will be laid out in the WSDOT Design Manual. We are already doing a lot of what the FHWA is asking for. There is also a process that allows a variance from the compliance requirements.

Issue Tracking Form

Chris asked the group what they thought of the WZSTF issue tracking process, whereby topics being considered by the WZSTF are tracked so that the issue can be brought to the group's attention, discussed and dealt with. The group said they liked it. Tracking issue number 1, vehicle lighting standards, is a TEF issue. The standards will be forwarded on to the TEF Working Group and TEF Board. Tracking issue number 2, eliminating ticket takers on pavers, will be reported on at the November WZSTF meeting. Tracking issue number 3, SEG grade stop/slow paddles. A great deal of discussion ensued regarding this issue. Feedback from flaggers and contractors has been very positive. A vote was finally taken, 14 yes votes, one no to submit a request to Ted Trepanier, State Traffic Engineer, for a change to the Sign Fabrication Manual that requires all new stop/slow paddles ordered to have the higher intensive sheeting material. Tracking number 4 is the ADIEM attenuators, tracking number 5 is the WSP agreement, and tracking number 6 is the work zone review process, all of which were discussed in these meeting minutes and will be addressed at the November WZSTF meeting.

Meeting adjourned at 3:00 p.m.